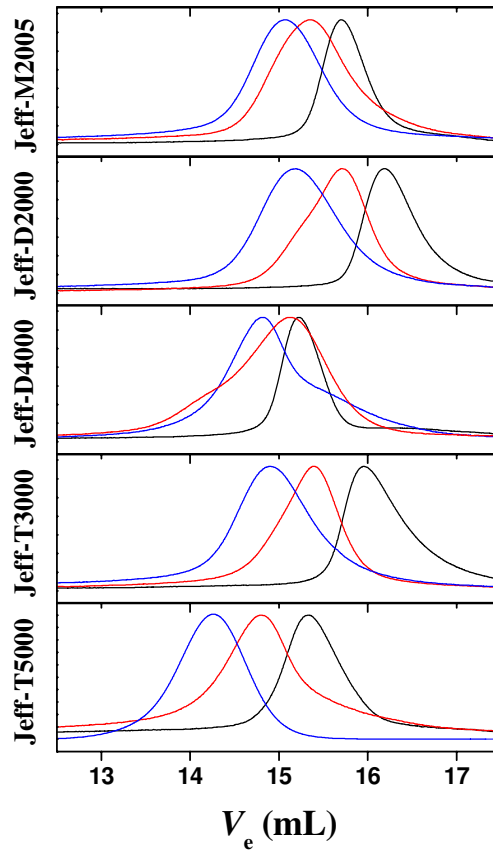


# Secondary Structure-Induced *Micro*- and *Macro*-Phase Separation in Polypeptide Diblock, Triblock and Star-Block Copolymers

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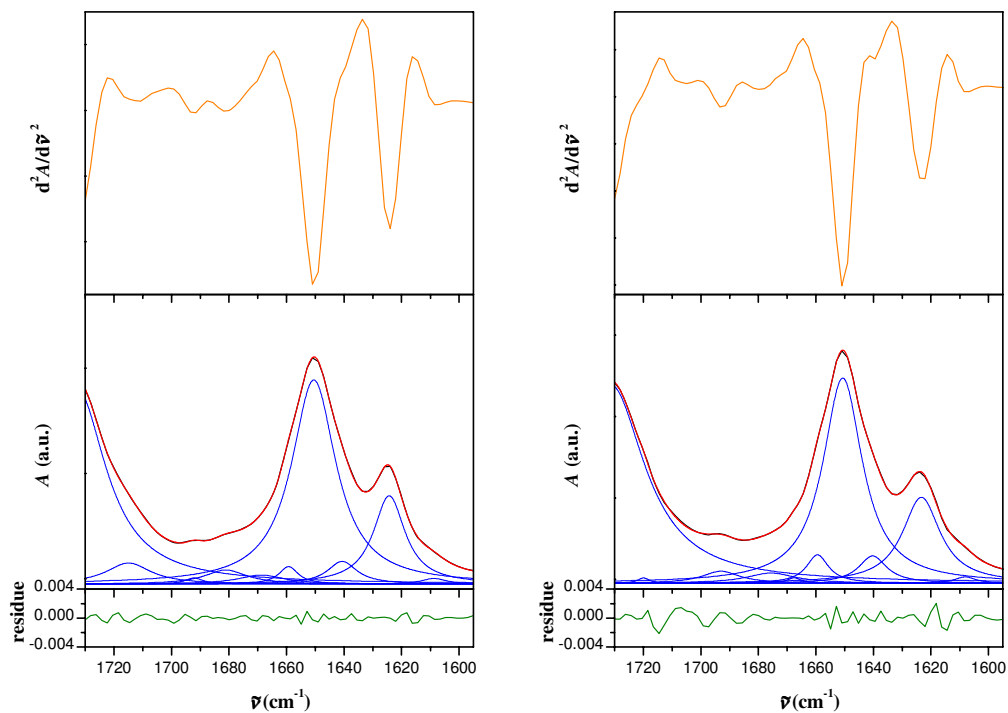
\*To whom the correspondence should be addressed: [raffaele.mezzenga@unifr.ch](mailto:raffaele.mezzenga@unifr.ch)



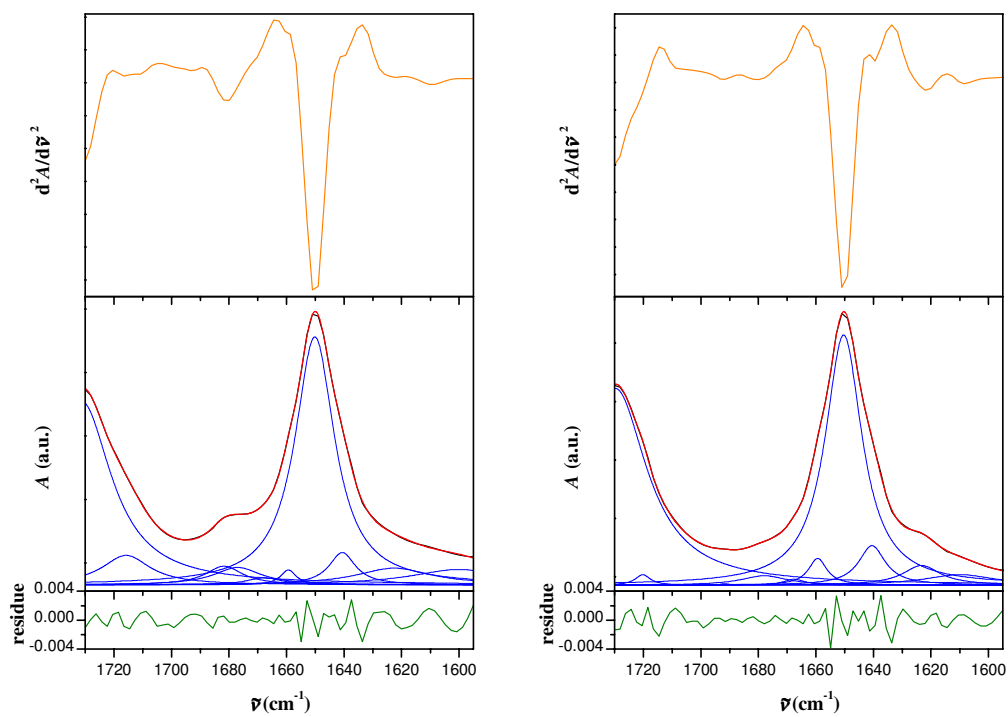
GPC traces of the five Jeffamines (black curves) and their corresponding block copolymers ( $\phi = 0.50$ , red;  $\phi = 0.75$  blue).  $\log [M^*IV] = 36.62231 - 5.61102 \cdot EV + 0.34155 \cdot EV^2 - 0.00781 \cdot EV^3$ .

In the following ATR-FTIR spectra, the curves are plotted for each sample before and after annealing: upper plots are the second derivative curves (orange), middle plots are the row spectra, and bottom plots are the residue curves (green). In the middle plots, the red curve is the fitting curve, and the blue ones correspond to the

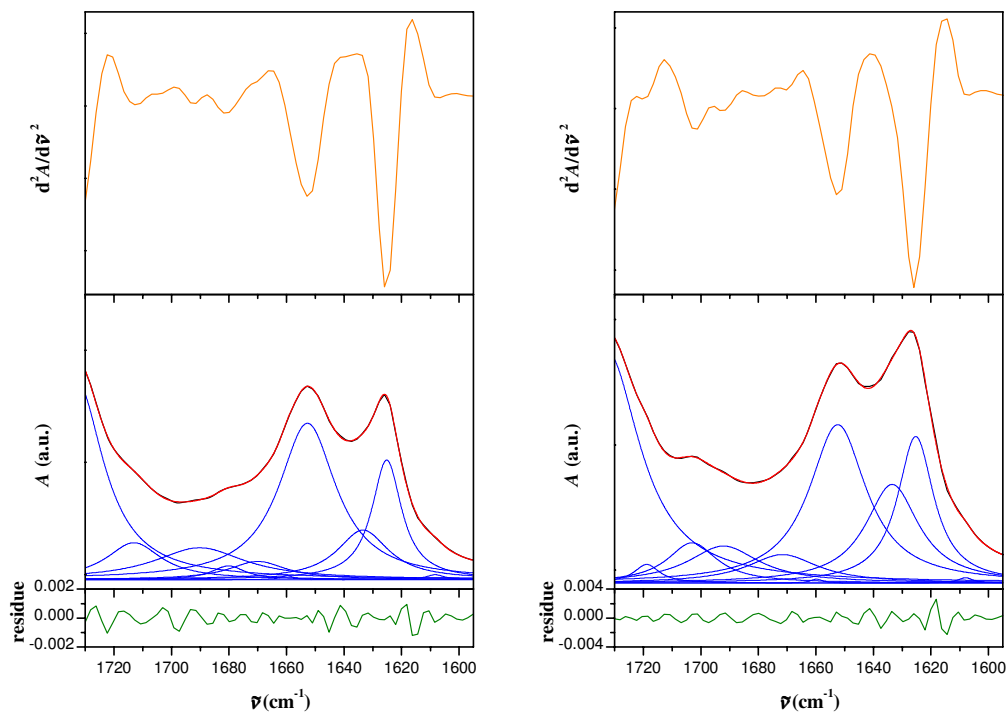
deconvoluted curves ( $\alpha$ -helix,  $\beta$ -sheet, and unordered segments or random coils peaks).



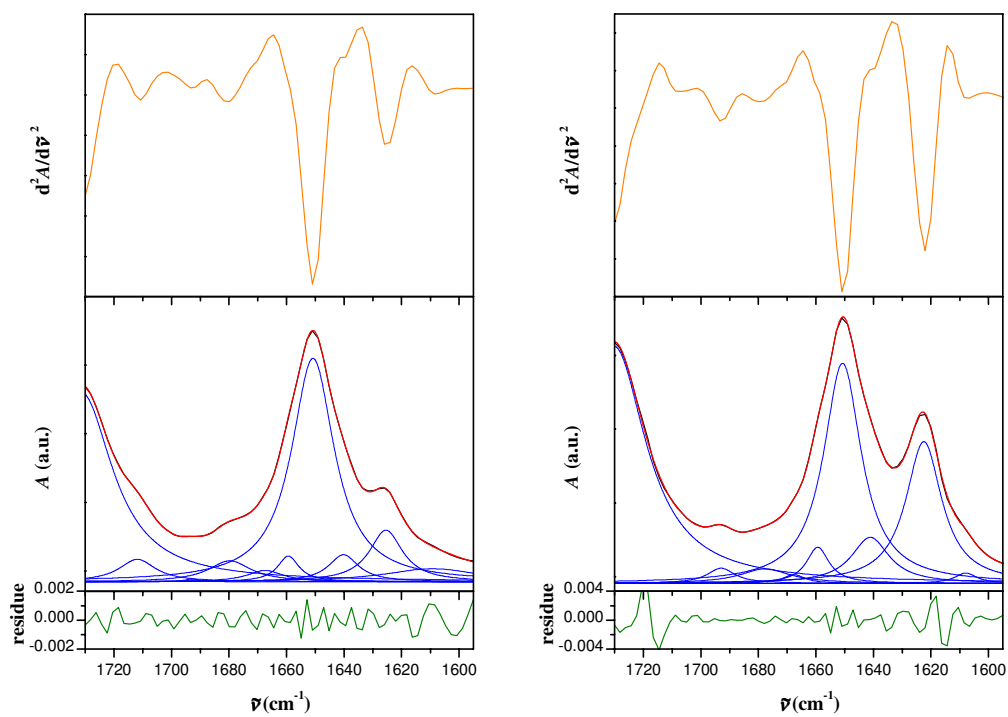
ATR-FTIR spectra of the diblock copolymer JM2-50 before (left) and after annealing (right).



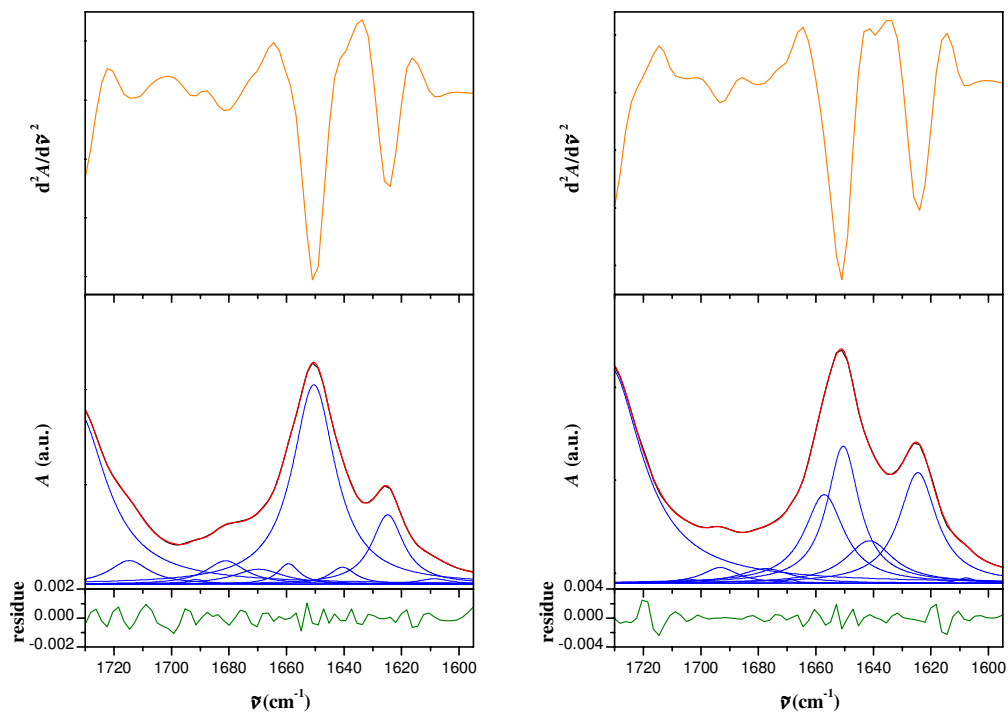
ATR-FTIR spectra of the diblock copolymer JM2-75 before (left) and after annealing (right)



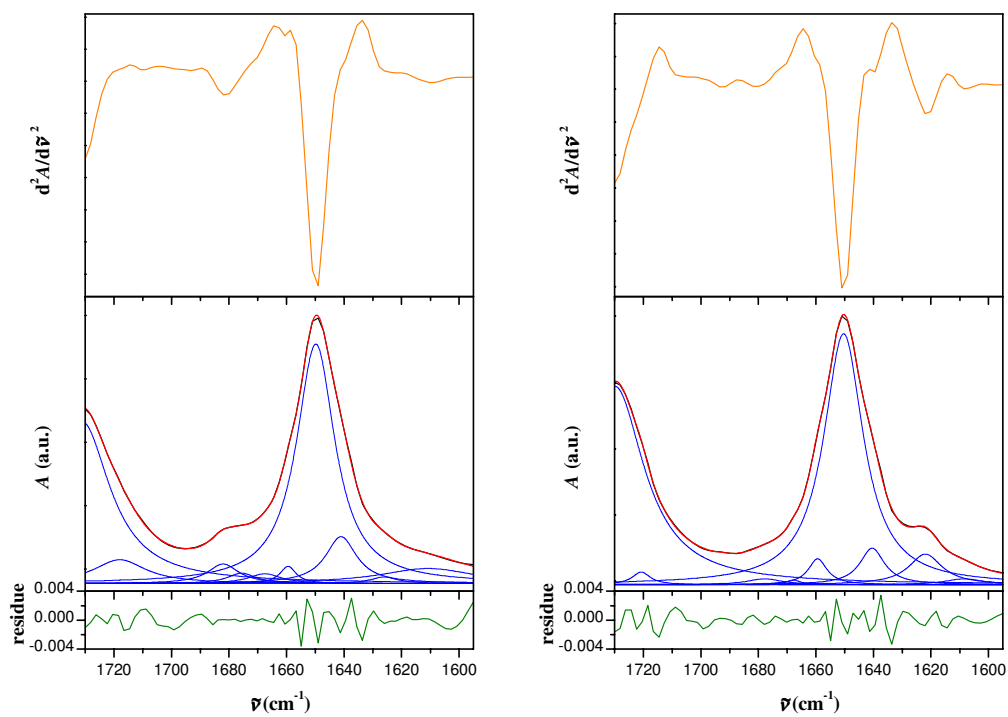
ATR-FTIR spectra of the triblock copolymer JD2-50 before (left) and after annealing (right).



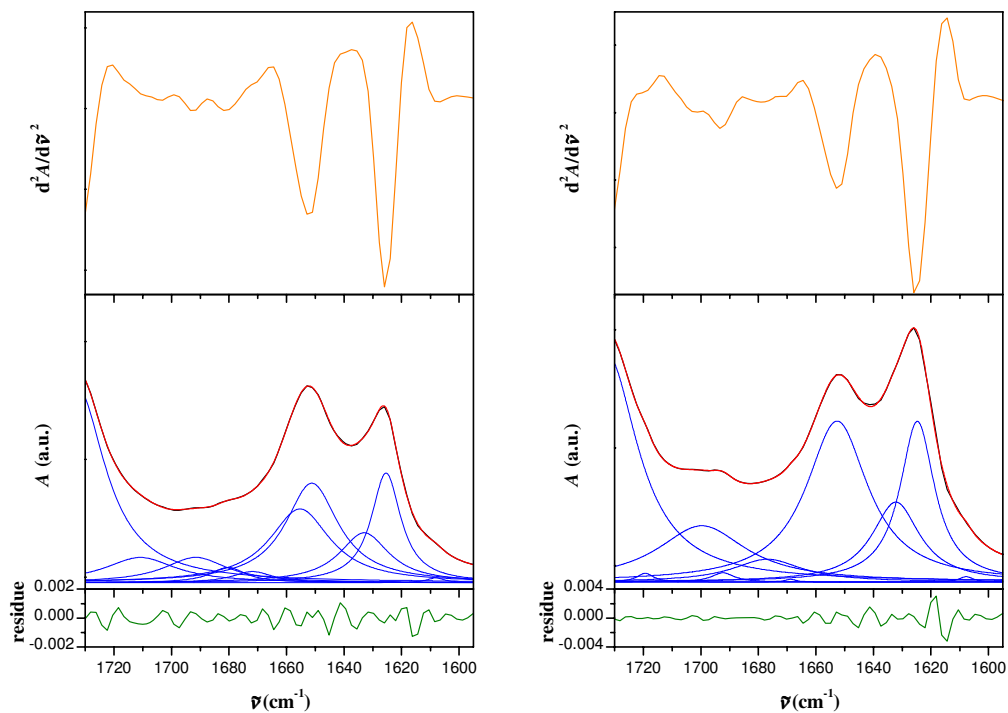
ATR-FTIR spectra of the triblock copolymer JD2-75 before (left) and after annealing (right).



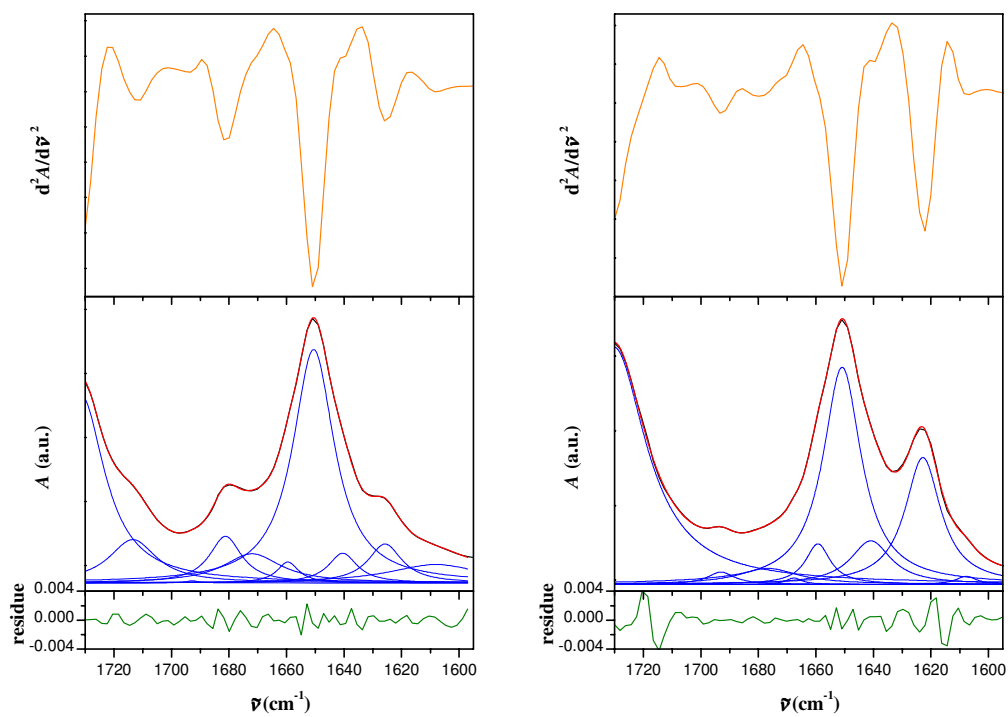
ATR-FTIR spectra of the triblock copolymer JD4-50 before (left) and after annealing (right).



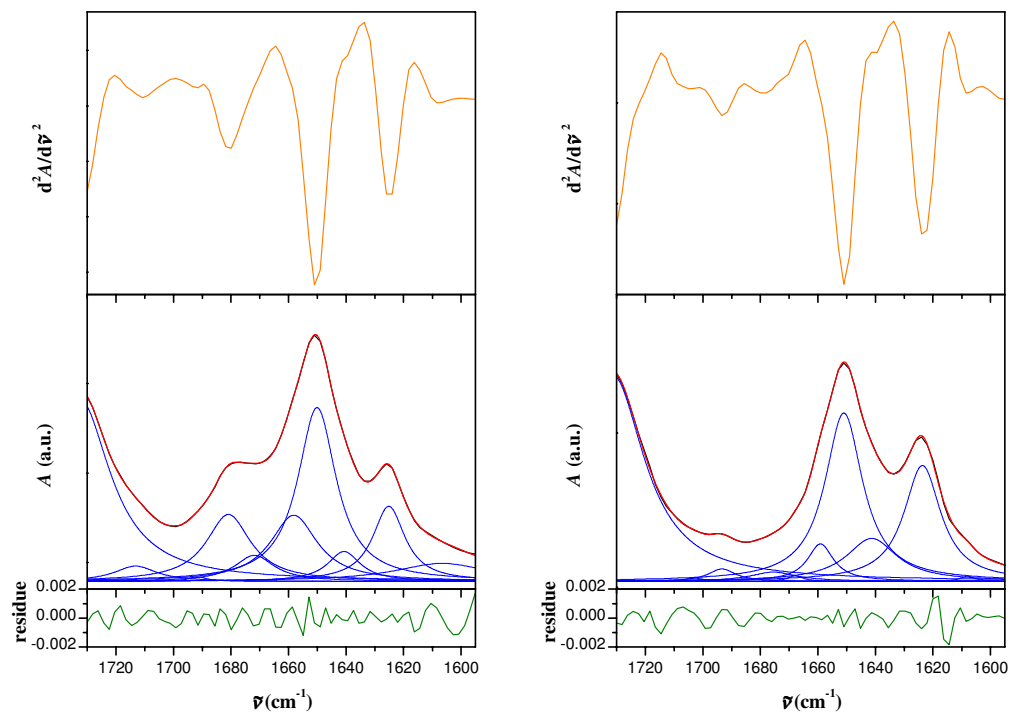
ATR-FTIR spectra of the triblock copolymer JD4-75 before (left) and after annealing (right).



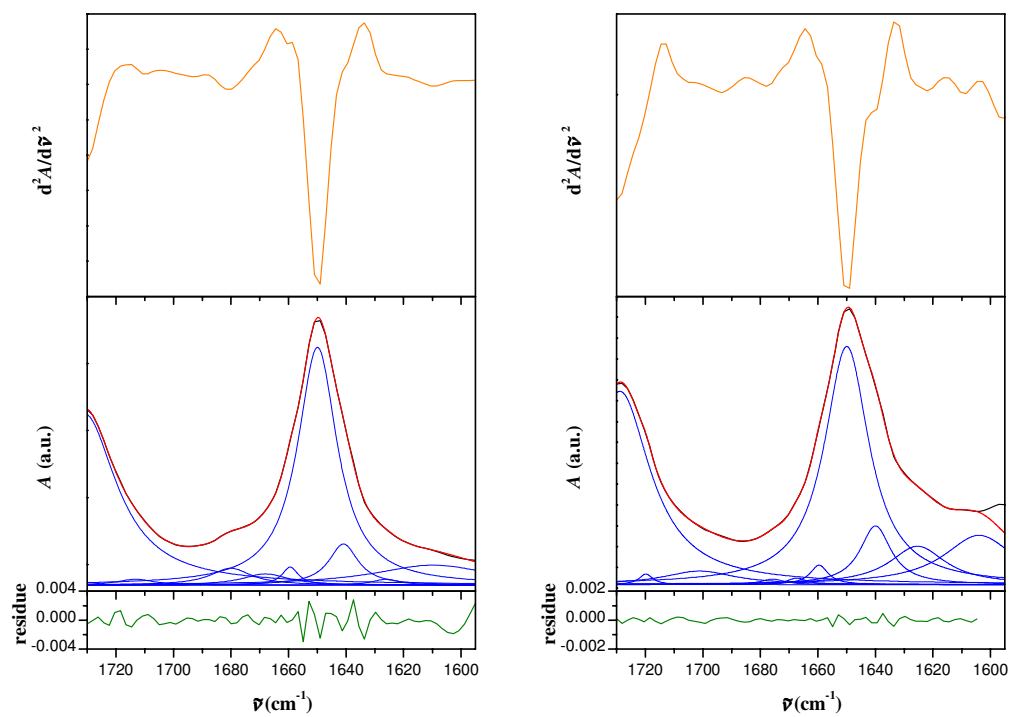
ATR-FTIR spectra of the tetra-block copolymer JT3-50 before (left) and after annealing (right).



ATR-FTIR spectra of the tetra-block copolymer JT3-75 before (left) and after annealing (right).



ATR-FTIR spectra of the tetra-block copolymer JT5-50 before (left) and after annealing (right).



ATR-FTIR spectra of the tetra-block copolymer JT5-75 before (left) and after annealing (right).